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(54) Title: SUPER-TWIST NEMATIC LIQUID CRYSTAL DISPLAY USING THIN CRYSTAL FILM POLARIZER

(57) Abstract: A simple, reliable and cost-effective super-twisted nematic liquid crystal display is disclosed. The liquid crystal display is suitable for application in all portable electronic devices due to the reliable and simple design employing a thin crystal film polarizer and is particularly suitable for outdoor display applications due to its increased environmental robustness. The thin crystal film polarizer also increases the viewing characteristics of the liquid crystal display and provides additional advantages. The disclosed liquid crystal display includes a front and rear polarizer and a super-twisted nematic liquid crystal layer, wherein the liquid crystal layer has a twist angle from about 230° to about 250°. The front and rear transmission axes of the polarizers are angularly displaced by about 70° to about 86° relative to each other.